

STATE RECORDS AND OTHER NOTEWORTHY COLLECTIONS FOR KENTUCKY

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ABSTRACT

Twenty-four species or varieties of vascular plants, all native to or naturalized in the southeastern U.S.A., are reported as new or noteworthy for Kentucky. Fourteen of these are native and ten are non-native. Fifteen of the taxa are reported as state records, and the accounts for the other nine taxa provide clarifications or updates on their status in the state. Taxa reported as state records are: *Acanthopanax sieboldianus*, *Callicarpa dichotoma*, *Castanea sativa*, *Cladium mariscoides*, *Hydrocotyle ranunculoides*, *Ilex cornuta*, *Ipomoea quamoclit*, *Ipomoea turbinata*, *Lonicera* × *minutiflora*, *Lonicera xylosteum*, *Magnolia grandiflora*, *Quercus texana*, *Ribes americanum*, *Salix cinerea* subsp. *oleifolia*, and *Symphotrichum divaricatum*.

RESUMEN

Se citan veinticuatro especies o variedades de plantas vasculares, todas nativas o naturalizadas en el Sureste de U.S.A., como nuevas o notables para Kentucky. Catorce de ellas son nativas y diez son introducidas. Quince de los taxa son citados como nuevos para el estado, y de otros nueve se hacen aclaraciones o puestas al día de su estatus en el estado. Los taxa citados como nuevos para el estado son: *Acanthopanax sieboldianus*, *Callicarpa dichotoma*, *Castanea sativa*, *Cladium mariscoides*, *Hydrocotyle ranunculoides*, *Ilex cornuta*, *Ipomoea quamoclit*, *Ipomoea turbinata*, *Lonicera* × *minutiflora*, *Lonicera xylosteum*, *Magnolia grandiflora*, *Quercus texana*, *Ribes americanum*, *Salix cinerea* subsp. *oleifolia*, y *Symphotrichum divaricatum*.

INTRODUCTION

Recent field and herbarium work has resulted in the discovery of 24 species of native and naturalized flowering plants new or noteworthy for Kentucky. These

findings update occurrences and distributions as reported by Beal and Thieret (1986), Browne and Athey (1992), Medley (1993), and Jones (2005). Kentucky rarity status—Special Concern, Threatened, Endangered, or Historical—is based on lists published by Kentucky State Nature Preserves Commission (KSNPC 2000, 2001). Nomenclature, as well as abbreviations for physiographic regions (**AP**—Appalachian Plateaus, **IP**—Interior Low Plateaus, **ME**—Mississippi Embayment), are based on Jones (2005), and herbarium abbreviations follow Holmgren et al. (1990). State distributions in the United States are based on USDA, NRCS (2004). Many of these records have resulted from an on-going statewide survey of woody plants by R.C. Clark, and also from analyses by R.C. Clark and R.L. Jones of recent additions to EKY of major sets of collections from E.T. Browne, H.R. Athey, and M.E. Wharton. Additional records have resulted from recent field work by staff of the KSNPC and other authors listed above.

TAXA NEW OR NOTEWORTHY FOR KENTUCKY

Acanthopanax sieboldianum Makino [*Elcutherococcus pentaphyllus* (Siebold & Zucc.) Nakai] (Araliaceae). Previous reports of fiveleaf aralia were based on specimens persistent after cultivation (Medley 1993). This species has been documented as an escape in Utah, Ohio, West Virginia, Pennsylvania, and in a few states in New England. It was included in Jones (2005) only as a brief note under the family account. The following records from the n. IP of Kentucky are from plants escaped from cultivation.

Voucher specimens: **Grant Co.:** roadside thicket near Zion Station, 7 Jun 1994, Thieret & Buddell 57455 (KNK). **Jefferson Co.:** woodland edge, Jefferson Hill Rd, ca. 2 mi SW of Jct Key's Ferry Road, 1 Jun 1994, Medley 20021-94 (KNK).

Acer floridanum (Chapm.) Pax (Aceraceae). There has been disagreement on the existence of the Florida maple (or southern sugar maple) in Kentucky. It was accepted by Browne and Athey (1992), rejected by Guetig and Jones (1991) and Medley (1993), but included as *A. barbatum* Michx. by Jones (2005). Ward (2004) concluded that the Michaux name, *A. barbatum*, was originally linked to specimens of *A. saccharum*, and therefore cannot be used for the Florida maple. The taxon is known from all contiguous states except Indiana, Ohio, and West Virginia. Most of the following records are from the ME of Kentucky.

Voucher specimens: **Butler Co.:** woods along KY 105, 3.8 mi W of Grayson Co. line, 8 Jul 1963, Browne & Browne 7556 (KY). **Calloway Co.:** Hancock Biological Station, Murray State University, mesic upland oak-hickory forest, 14 Jun 1998, Thompson 98-162 (BEREA). **Carlisle Co.:** loess bluffs on road off KY 62 to Beech Grove Church Rd, 13 May 1971, Browne & Browne 71E131 (EKY, MDKY). **Fulton Co.:** lower slopes of loess bluffs, 8 Oct 1986, Campbell s.n (KY). **Graves Co.:** KY 1763, 1.5 mi W of Jct U.S. 45, deciduous woods, 27 Jun 1973, Browne et al. 73D11 (EKY). **Hickman Co.:** oak-hickory woods, base of loess bluffs, 21 Jul 1995, Weckman & Rozeman 1758 (EKY). **Marshall Co.:** woods along KY 80, 1.8 mi E Graves Co. line, 12 May 1963, Browne & Browne 7046 (KY). **Owen Co.:** upland woods near Kentucky River off KY 355, 2 Jun 1996, Weckman et al. 2815 (EKY).

Callicarpa dichotoma (Lour.) K. Koch (Verbenaceae). The purple beautybush, a native of China and Japan, was previously known as an escape only in North and South Carolina, Tennessee, and Virginia. This report from the n. IP is the first for Kentucky.

Voucher specimen: **Madison Co.**: adventive at woodland edge in Hilltop Acres Subdivision, ca. 6 mi W of Richmond, 4 Oct 2004, *Clark 25570* (EKY).

Castanea sativa Mill. (Fagaceae). Spanish chestnut, native in western Asia, has previously been documented for Alabama, Pennsylvania, and several New England states. It has not been reported in previous literature as naturalized in Kentucky. The following specimens from the AP and IP were determined by R.C. Clark.

Voucher specimens: **Fleming Co.**: swamp forest near Plummer's Landing, 15 Sep 1974, *Meijer s.n.* (KY). **McCreary Co.**: near Whitley City, Summer, 1989, *Campbell s.n.* (KY).

Cladium mariscoides (Muhl.) Torr. (Cyperaceae). Smooth sawgrass is known from all surrounding states except West Virginia and Missouri. It has been reported from Kentucky (see Beal & Thieret 1986) but no previous vouchers are known, and it was not included in Jones (2005). This recent collection from the ne. IP now confirms the presence of this sedge in Kentucky.

Voucher specimen: **Bath Co.**: shallow drainage ditch of wooded wetlands, Hog Hollow drainage of Licking River just SW of Cave Run Dam, elevation 820 ft, 23 Nov 2004, *Feeman s.n.* (MDKY).

Cornus sericea L. [*C. stolonifera* Michx.] (Cornaceae). Red-osier dogwood is known from all contiguous states (except Missouri) to the east, north, and west of Kentucky. The species was accepted for Kentucky by Browne and Athey (1992), but rejected by Medley (1993), and considered a species of questionable documentation by Jones (2005). The following specimens determined by R.C. Clark document the presence of red-osier dogwood in the AP and IP of Kentucky.

Voucher specimens: **Henry Co.**: no locality, 23 Aug 1910, *Garman s.n.* (KY). **Wolfe Co.**: oak-pine woods, along trail to Sky Bridge; single clone of 4 stems, 4 Oct 2004, *Clark 25569* (EKY).

Drosera intermedia Hayne (Droseraceae). Narrow-leaved sundew has been documented from most of the eastern United States, but is known in Kentucky only from specimens collected in the 1800s (see Beal & Thieret 1986 and Medley 1993), and considered Historical in the most recent listings by the KSNPC (2000, 2001). It was recently rediscovered in the s. IP of the state by the KSNPC, in wet, heavily disturbed woodland openings.

Voucher: a digital image deposited at EKY **Russell Co.**: several hundred plants observed in ruts of wet fields in bush-hogged (previously bulldozed) openings of flatwoods, plants still persistent the following summer, ca. 3 miles N of Russell Springs, on farm along Berry Road, 23 Jul 2003, *Hines & Drozda s.n.* (EKY).

Hydrocotyle ranunculoides L.f. (Apiaceae). Buttercup pennywort has been documented from all contiguous states except Indiana and Missouri. It was not listed by Beal & Thieret (1986), Browne and Athey (1992), or Medley (1993), but was

included in Jones (2005), based on the following voucher collected in the far western portion of the ME.

Voucher specimen: **Graves Co.:** Terrapin Creek Nature Preserve, edge of large marsh, forming floating mats, 3 Jul 2003, *White s.n.* (EKY).

Ilex cornuta Lindl. & Paxton (Aquifoliaceae). Chinese holly has previously been reported as an escape only in Alabama and North Carolina, and has not been listed in earlier publications on the Kentucky flora. This collection is from the n. IP.

Voucher specimen: **Madison Co.:** several plants escaping on campus of Eastern Kentucky University, behind Keith Hall, 4 Oct 2004, *Clark 25571* (EKY).

Ipomoea quamoclit L. (Convolvulaceae). Cypressvine is native to tropical America, and is known to escape in all states surrounding Kentucky except Indiana, Ohio, and West Virginia. Medley (1993) rejected this taxon from the Kentucky flora, and it was treated as a "to be expected" species in Jones (2005). This collection is from the n. IP.

Voucher specimen: **Madison Co.:** twining on *Helianthus annuus* in a landfill off South Dogwood Drive and KY 21, Berea, where the species has persisted for two years, 30 Aug 2003, *Thompson & FitzGerald 04-1264* (BEREA).

Ipomoea turbinata Lag. (Convolvulaceae). Purple moonflower, a native of India, has been reported as an escape from most southern states (North Carolina to Texas to Arkansas, except for Alabama and Tennessee). This collection from the far western portion of the ME is a considerable range extension, and is the northernmost record. It was not observed at the site in a follow-up visit in summer, 2003 (M.J. McWhirter, pers. comm.).

Voucher specimen: **Hickman Co.:** Wolf Island, in open field, a cottonwood plantation in bottomland of Mississippi River, Jul 2002, *McWhirter s.n.* (EKY). Determination by R.L. Jones, verified by D.F. Austin, Arizona-Sonora Desert Museum.

Lonicera × minutiflora Zabel [*Lonicera × muendeniensis* Rehder] (Caprifoliaceae). This taxon has a complex hybrid origin, and has previously been documented only in Illinois, Indiana, Michigan, and Wisconsin. This collection determined by R.C. Clark is from the n. IP of Kentucky.

Voucher specimen: **Woodford Co.:** along railroad tracks, near U.S. 60 bypass at 2nd railroad crossing W of Lexington-Versailles Pike, 11 May 1962, *Browne & Browne 5176* (EKY).

Lonicera xylosteum L. (Caprifoliaceae). European fly honeysuckle is known from all contiguous states except West Virginia and Tennessee. It was not listed for Kentucky by Browne and Athey (1992), rejected by Medley (1993), but was included in Jones (2005) on the basis of inaccurate specimen determinations.

Voucher specimen: **Laurel Co.:** uplands of Rock Creek Gorge, ruderal community near white pine stand, 4 Jul 1989, *Thompson & Skeese 89-1425* (EKY).

Magnolia grandiflora L. (Magnoliaceae). Southern magnolia occurs across the Coastal Plain from North Carolina to east Texas, north to Arkansas, Tennessee,

and Virginia. It is not native to Kentucky, and both Browne & Athey (1992) and Medley (1993) rejected it as occurring outside of cultivation in the state. Specimens listed below document the first spontaneous establishment of *Magnolia grandiflora* in Kentucky. It was included in Jones (2005) as a rare adventive on the basis of these vouchers. The collections are from the ME and the n. IP. A similar distribution pattern has been documented in Tennessee (Chester et al. 1997). Both sites in Kentucky were similar, remnant woodlands with poorly drained, acidic soils, adjacent to urban areas.

Voucher specimens: **McCracken Co.:** single individual in disturbed oak woods and intermittent drainage below baseball field, Paducah Community College, 5 Nov 1994, *Weckman & Weckman 1190* (EKY). **Madison Co.:** low remnant pin oak-red maple woodlot, between KY 595 and Rash Rd, just N of Berca, 23 Jan 1999, *Weckman et al. 4527* (EKY).

Nyssa biflora Walter (Nyssaceae). Swamp tupelo occurs in all contiguous states except Indiana, Ohio, and West Virginia. It was accepted by Browne and Athey (1992), rejected by Medley (1993), and treated as a questionable taxon by Jones (2005). It has now been verified by R.C. Clark for several counties in the ME and IP of Kentucky.

Voucher specimens: **Calloway Co.:** flatwoods on Tobacco Road near Murray, 11 Jul 1996, *Campbell s.n.* (KY). **Cumberland Co.:** low ground near Cloyd's Landing, 2 Oct 1999, *Clark 25351* (EKY). **Fleming Co.:** low ground along Big Run Creek, 0.3 mi N of jet KY 1013, 19 Jul 1999, *Clark & Bauer 25226* (EKY). **Livingston Co.:** 1.2 mi E of Ledbetter, 2.2 mi NE of Tennessee River bridge, 24 Mar 1972, *Wilson s.n.* (MUR). **Marshall Co.:** Sledd Creek embayment, S of KY 641, ca. 2 mi W of Kentucky Dam, shoreline, 30 May 1989, *Grubbs 1437* (MUR) and **Rockcastle Co.:** bank of Copper Creek, 15 Jun 1938, *Wharton 2691* (KY).

Populus balsamifera L. (Salicaceae). Balsam poplar is native to mesic woods of northeastern North America, and has been documented in all contiguous states to Kentucky except Tennessee and Missouri. There long has been confusion about whether this species occurs naturally in Kentucky. Medley (1993) was of the opinion that previous reports of the plants in Kentucky should be referred to *P. × jackii* Sargent, a hybrid between *P. balsamifera* L. and *P. deltoides* W. Bartram ex Marshall. Some specimens have been referred to *Populus × gileadensis* Rouleau (Balm-of-Gilead poplar), but this taxon is known to be a pistillate clone (Hardin et al. 2001), and several of the cited specimens have staminate catkins. These collections, all verified by R.C. Clark, document the species in both the AP and IP of Kentucky.

Voucher specimens: **Carter Co.:** KY 182, 59 mi W of jet U.S. 60, flood plain, 30 Jul 1965, *Browne & Browne 10978* (EKY). **Casey Co.:** Turkey Creek Road, 6 May 1962, *Murphy & Browne 413* (KY). **Lee Co.:** Beartrack, 8 Sep 1974, *Black 10* (KY). **Letcher Co.:** old strip mine area, 0.6 mi from Virginia border, near Eolia, 4 Oct 1978, *Hannan & Phillippe KEP-01-017-00637* (EKY). **Menifee Co.:** bench above Wolfpen Creek, ca. 1 mi N of KY 715, 6 Sep 1989, *Clark & Taylor 22338* (EKY). **Powell Co.:** Anders Branch, 1 May 1993, *Campbell s.n.* (KY).

Potamogeton amplifolius Tuck. (Potamogetonaceae). Largeleaf pondweed is known from most eastern states. Medley (1993) noted that the species was col-

lected in Kentucky in the mid-1800s by C.W. Short, but that it was likely later extirpated. It was included in Jones (2005), based on the following voucher collected by the KSNPC from the s. IP.

Voucher specimen: **Pulaski Co.:** submersed in stream over a 2×3 meter area, in Buck Creek near Reynold Hollow, 10 Aug 1999, *White & Fields s.n.* (KNK). Verified by J.W. Thieret.

Prenanthes racemosa Michx. (Asteraceae). Purple rattlesnakeroot is known from most northeastern and northcentral states. The only record of this species in Kentucky was a historical collection from Pendleton County, and the species was considered to be extirpated in the state by Medley (1993). It was listed as "to be expected" in Jones (2005), and the following recent collection by the KSNPC from the n. AP reaffirms its presence in Kentucky.

Voucher specimen: **Lewis Co.:** siltstone/calcareous shale glade, in Crooked Creek Barrens State Nature Preserve, 27 Sep 2004, *Hines & Evans s.n.* (EKY).

Quercus nigra L. (Fagaceae). There have been persistent reports of water oak in Kentucky. Browne and Athey (1992) accepted the species, based on reports from the 19th century. Medley (1993) questioned many of the records, suggesting that some were based on misidentifications or were from trees in cultivation. The species has now been firmly documented from the s. IP by the KSNPC, and other records confirm the ability of the species to naturalize in the ME of Kentucky. The native range of the species in south-central U.S. now includes Kentucky and all contiguous states except Indiana, Ohio, and West Virginia.

Voucher specimens: **Wayne Co.:** large tree on edge of bottomland in Meadow Creek Swamp, S of KY 90, 14 Jul 2000, *Hardin et al. s.n.* (EKY).

Quercus texana Buckley (Fagaceae). Nuttall's oak was not accepted as a member of Kentucky's flora by Browne and Athey (1992) or by Medley (1993). It was included in Jones (2005), based on the following voucher from the ME. It is also known from adjacent Tennessee, Missouri, and Illinois.

Voucher specimen: **Calloway Co.:** common along trail, end of gravel road off KY 444, seeps into Blood River, N of New Concord, 22 Jul 1995, *Weckman & Rozeman 1778* (EKY).

Ribes americanum Mill. (Grossulariaceae). Wild black currant grows from Montana to New England to Missouri, Illinois, Indiana, Ohio, West Virginia, and Virginia. It was not accepted by Browne and Athey (1992) or by Medley (1993). It was included in Jones (2005), based on the following collections from the AP and n. IP.

Voucher specimens: **Lee Co.:** mixed woods, S-facing ravine of Walker Creek, 27 Apr 1996, *Kirk & Clark #1* (EKY). **Madison Co.:** bottomland forest, Bluegrass Army Depot, 14 Jul 1993, *Libby & Mears OB-526* (EKY).

Rosa virginiana Mill. (Rosaceae). Virginia rose has been documented from all states contiguous to Kentucky except Indiana, Ohio, and West Virginia. It was accepted by Browne and Athey (1992), rejected by Medley (1993), and treated as

a taxon of unknown status by Jones (2005). The following collections from the AP and IP have now been verified for Kentucky by R.C. Clark.

Voucher specimens: **Harrison Co.:** upland pasture and woodlots, W of Dividing Ridge Road and N of KY 32, 7 Jun 1999, *Clark & Bauer 24680* (EKY). **Menifee Co.:** KY 77, roadside, 0.25 mi from iron bridge, 9 Jul 1969, *Higgins 1618* (KY). **Mercer Co.:** woodland edges between Shakertown and High Bridge, 23 Jul 1955, *Wharton 9217* (KY). **Rowan Co.:** KY 174, 0.6 mi W of Haldeman PO., fallow land, 28 Jun 1965, *Browne & Browne 10492* (EKY).

Salix cinerea L. subsp. ***oleifolia*** (Sm.) Macreight (Salicaceae). Large gray willow, a native of the Mediterranean region, is known to escape in the eastern United States, and has previously been documented from North Carolina, Pennsylvania, New York, Massachusetts, and Maine. Earlier reports of this species in Kentucky were based on specimens from cultivated plants (Argus 1986), and it was not included in Jones (2005). This collection from the ME is therefore the first documentation of the species in Kentucky.

Voucher specimen: **Hickman Co.:** N on Old Milburn Road, E on new logging road to Obion Creek, slough, 23 Aug 1988, *Grubbs 1226* (MUR). Determined by R.C. Clark.

Symphytotrichum divaricatum (Nutt.) G.L. Nesom [*Aster subulatus* Michx. var. *ligulatus* Shinnery] (Asteraceae). Southern annual saltmarsh aster was previously known from most southern and midwestern states, including adjacent Tennessee and Missouri, but has not been reported in previous literature on the Kentucky flora. It was known from adjacent counties (Lake and Obion) in the Reelfoot Lake region of Tennessee (Chester et al. 1997). This species was discovered in Kentucky during an Eastern Kentucky University class trip to western Tennessee and Kentucky. The plants were first observed by two students, Amy V. McIntosh and James Storm, who noted the plants growing along a roadside just north of the upper reaches of Reelfoot Lake. This discovery from the ME came too late for inclusion in Jones (2005), where it was treated as "to be expected."

Voucher specimen: **Fulton Co.:** open wet fields, along KY 1282, at jct gravel road, 2.7 mi W of jct KY 311, 2 Oct 2004, *Bio 525/725 class collection # 45* (EKY).

ACKNOWLEDGMENTS

The authors wish to thank Robert Paratley (KY) and an anonymous reviewer whose helpful comments improved the manuscript.

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